ταλαντα

talanta

Volume Contents/Author Index

Volume 40, 1993

PERGAMON

Talanta

The International Journal of Pure and Applied Analytical Chemistry

Editors-in-Chief

PROFESSOR G.D.CHRISTIAN,
Department of Chemistry, BG-10,
University of Washington,
Seattle, WA 98195, U.S.A.

PROFESSOR E.H.HANSEN,
Chemistry Department A, Building 207,
Technical University of Denmark,
DK-2800 Lyngby, Denmark

Chemical Sensors Editor

PROFESSOR W.R.SEITZ, Department of Chemistry, University of New Hampshire, Durham, NH 03824, U.S.A.

Associate Editor

DR R.E.SYNOVEC, Department of Chemistry, BG-10, University of Washington, Seattle, WA 98195, U.S.A.

Book Review Editor

DR P.J.COX, The Robert Gordon University, Aberdeen, U.K.

Review Editor

DR LARS KRYGER, School of Science, National Institute of Education, Nanyang Technological University,
469 Bukit Timah Road, Singapore 1025, Republic of Singapore

Production Editor

M. LAZENBY, Elsevier Science Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, U.K.

Editorial Board

Chairman: PROFESSOR J.D.WINEFORDNER
PROFESSOR G.D.CHRISTIAN
PROFESSOR E.H.HANSEN
PROFESSOR W.R.SEITZ
DR L.KRYGER
DR R.E.SYNOVEC

Advisory Board

Chairman: PROFESSOR J.D.WINEFORDNER, Gainesville, Florida, U.S.A.

Talanta

PROFESSOR A.G.ASUERO, Seville, Spain
DR A.BERTHOD, Villeurbanne, France
PROFESSOR DR. P.W.J.M.BOUMANS, Eindhoven, The Netherlands (Liaison member for *Spectrochimica Acta B*)
PROFESSOR R.G.COOKS, West Lafayette, Indiana, U.S.A.
PROFESSOR A.CORSINI, Hamilton, Ontario, Canada
PROFESSOR S.R.CROUCH, East Lansing, Michigan, U.S.A.
PROFESSOR P.K.DASGUPTA, Lubbock, Texas, U.S.A.
PROFESSOR Z.FANG, Shenyang, China
PROFESSOR A.F.FELL, Bradford, U.K. (Liaison member for *Journal of Pharmaceutical and Biomedical Analysis*)
PROFESSOR R.GIJBELS, Wilrijk, Belgium
PROFESSOR M.GROSS, Strasbourg, France
PROFESSOR A.HULANICKI, Warsaw, Poland
PROFESSOR R.J.HURTUBISE, Laramie, Wyoming, U.S.A.
PROFESSOR T.IMASAKA, Fukuoka, Japan
PROFESSOR J.INCZÉDY, Veszprém, Hungary
PROFESSOR J.D.INGLE, Corvallis, Oregon, U.S.A.
PROFESSOR A.IVASKA, Turku, Finland
PROFESSOR K.IZUTSU, Matsumoto, Japan
PROFESSOR D.JAGNER, Gothenburg, Sweden
PROFESSOR B.KARLBERG, Stockholm, Sweden
DR H.KRAGTEN, Amsterdam, The Netherlands
PROFESSOR L.J.KRICKA, Philadelphia, Pennsylvania, U.S.A.
PROFESSOR D.LITTLEJOHN, Glasgow, U.K.
PROFESSOR D.MALJKOVIĆ, Zagreb, Croatia
PROFESSOR J.P.MATOUSEK, Sydney, Australia
DR M.MELOUN, Pardubice, Czech Republic
PROFESSOR T.M.NIEMCZYK, Albuquerque, New Mexico, U.S.A.
PROFESSOR M.NOVOTNY, Bloomington, Indiana, U.S.A.
DR N.OMENETTO, Ispra, Italy
PROFESSOR S.P.PERONE, San Jose, California, U.S.A.
PROFESSOR E.PUNGOR, Budapest, Hungary
PROFESSOR I.ROELANDTS, Liège, Belgium
PROFESSOR M.R.SMYTH, Dublin, Ireland
PROFESSOR L.SOMMER, Brno, Czech Republic
PROFESSOR J.F.VAN STADEN, Pretoria, South Africa
PROFESSOR K.ŠTULÍK, Prague, Czech Republic
PROFESSOR G.TÖLG, Dortmund, Germany
PROFESSOR M.VALCARCEL, Córdoba, Spain
DR T.VO-DINH, Oak Ridge, Tennessee, U.S.A.
PROFESSOR J.WANG, Las Cruces, New Mexico, U.S.A.
PROFESSOR I.M.WARNER, Baton Rouge, Louisiana, U.S.A.
PROFESSOR E.L.WEHRY,JR, Knoxville, Tennessee, U.S.A.
DR B.WELZ, Uberlingen, Germany

Talanta: Chemical Sensors

DR A.G.FOGG, Loughborough, U.K.
PROFESSOR J.JANATA, Richland, Washington, U.S.A.
DR S.J.MARTIN, Albuquerque, New Mexico, U.S.A.
PROFESSOR M.MASCINI, Florence, Italy
PROFESSOR T.SHONO, Osaka, Japan
PROFESSOR M.THOMPSON, Toronto, Canada
PROFESSOR N.YAMAZOE, Fukuoka, Japan

Second Class Postage Paid at Rahway, NJ. Postmaster send address corrections to *Talanta*, c/o **Elsevier Science Inc., 660 White Plains Road, Tarrytown, NY 10591-5153, U.S.A.**

Copyright © 1994 Elsevier Science Ltd

LIST OF CONTENTS

JANUARY

I. Kuselman	1	Theory of intralaboratory validation of accuracy of an analytical technique by standard reference materials
E. Bauer-Wolf, W. Wegscheider, S. Posch, G. Knapp, H. Kolmer and F. Panholzer	9	Determination of traces of rare earth elements in geological samples
M. D. Luque de Castro and M. T. Tena	21	Solid interfaces as analytical problem solvers in flow injection analysis
M. Falcón, J. Guiteras, A. Izquierdo and M. D. Prat	17	Spectrofluorimetric determination of zinc in foods with 8-(*p*-toluenesulphonamido)quinoline in micellar medium
R. von Wandruszka, X. Yuan and M. J. Morra	37	Determination of sulfur species by cathodic square wave stripping voltammetry; compounds relevant to natural sulfur mineralization
David R. Jones	43	Applying the phenol red colorimetric method for bromide analysis to reducing waters
		1992 Winter Conference on Flow-Injection Analysis
Purnendu K. Dasgupta, Harvey S. Bellamy, Hanghui Liu, Jorge L. Lopez, Ellis L. Loree, Kavin Morris, Kaj Petersen and Kalam A. Mir	53	Light emitting diode based flow-through optical absorption detectors
S. Nakano, M. Fukuda, S. Kageyama, H. Itabashi and T. Kawashima	75	Flow injection determination of chromium(III) by pyrogallol chemiluminescence
Miguel Guzman, Cy Pollema, Jaromir Růžička and Gary D. Christian	81	Sequential injection technique for automation of complex analytical procedures: fluorometric assay of factor thirteen
Salvador Garrigues, Máximo Gallignani and Miguel de la Guardia	89	FIA–FT–IR determination of ibuprofen in pharmaceuticals
Johan Nyman and Ari Ivaska	95	Potentiometric and spectrophotometric determination of calcium in the wet end of paper machines by flow injection analysis
N. Teshima, H. Itabashi and T. Kawashima	101	Reverse flow injection analysis of complexing agents and its application to estimation of complexing capacity
R. Martinez-Avila, V. Carbonell, A. Salvador and M. de la Guardia	107	Direct FIA–AS determination of potassium and magnesium in cement samples by use of the slurries approach
M. J. Whitaker	113	Determination of hydrogen peroxide in reactor moderator solutions by flow injection analysis
Notice	i	

FEBRUARY

	V	Obituary
Gary D. Christian and Elo H. Hansen	119	Space-age analysis: a guide for authors and reviewers
Robert A. Chalmers	121	Space-age analysis
Review		
Mark L. Ferrey and Rex E. Lovrien	127	Microbial calorimetric analysis (MCA) of aqueous organic compounds
L. Darbha and J. Arunachalam	135	Determination of vanadium: an optimization of the gallic acid persulphate method
Dwight W. Underhill	139	Optimal design of diffusive samplers
Dwight W. Underhill	143	Error bounds in diffusive sampling with reversible adsorption

Elizabeth A. Rochette, James B. Harsh and Herbert H. Hill, Jr	147	Supercritical fluid extraction of 2,4-D from soils using derivatization and ionic modifiers
J. L. Beltrán, R. Codony, M. Granados, A. Izquierdo and M. D. Prat	157	Acid–base and distribution equilibria of 5,7-dichloro-2-methyl-8-hydroxyquinoline in Brij-35 micellar media solutions
S. I. Montalvo and J. D. Ingle, Jr	167	Chemiluminescence during the oxidation of alcohols by permanganate: application to the determination of ethanol in gin
H. S. Du, D. J. Wood, Sadik Elshani and C. M. Wai	173	Separation of thorium from lanthanides by solvent extraction with ionizable crown ethers
I. Nirdosh, S. Lakhani and M. Z. Mohd Yunus	179	Sulphate analysis in uranium leach iron(III) chloride solutions by inductively coupled argon plasma spectrometry
Xiao-Chun Le, William R. Cullen and Kenneth J. Reimer	185	Determination of urinary arsenic and impact of dietary arsenic intake
Jinzhang Gao, Guanglin Hu, Jinwan Kang and Guangbi Bai	195	1-(2-Pyridylazo)-2-naphthol (PAN) as extractant in solid–liquid extraction of some trivalent rare earth elements
A. L. J. Rao, A. K. Malik and Jyoti Kapoor	201	Extraction spectrophotometric determination of maneb with 1-(2′-pyridyl-azo)-2-naphthol (PAN)
Ignacy Cukrowski and Ewa Cukrowska	205	Direct zinc determination in commercial sulphuric acid by DPASV. Comparison of rotating disc and stationary graphite electrodes
W. J. Havenga	213	Rapid gas analyses for the investigation of spontaneous combustion using capillary gas chromatography
Vítězslav Otruba, Marta Strnadová and Blanka Skalníková	221	Determination of platinum in plants by emission spectrometry after preconcentration on modified silicagel
S. Panadero, A. Gómez-Hens and D. Pérez-Bendito	225	Simultaneous determination of warfarin and bromadiolone by derivative synchronous fluorescence spectrometry
Shoichi Katsuta and Nobuo Suzuki	231	Solvent extraction of 8-quinolinolato–iron(III) with the aid of various phenols as hydrogen-bonding donors
Rokuro Kuroda, Takeharu Wada, Yoko Kokubo and Koichi Oguma	237	Ion interaction chromatography of nitrilotriacetatocomplexes of the rare earth elements with post-column reaction detection
G. Anderegg	243	The investigation of complex formation equilibria at constant ionic strength
Anthony R. Koebele and David C. Tilotta	247	Determination of chlorinated hydrocarbons introduced into air/acetylene flames by Fourier transform infrared emission spectroscopy
Totaro Imasaka, Masami Hozumi and Nobuhiko Ishibashi	255	Supersonic jet spectrometry of thermally decomposed products from polystyrene and polyα-methylstyrene
M. Blanco, J. Coello, H. Iturriaga, S. Maspoch, J. Riba and E. Rovira	261	Kinetic spectrophotometric determination of Ga(III)–Al(III) mixtures by stopped-flow injection analysis using principal component regression
Jiří Militký and Milan Meloun	269	Multiparametric curve fitting XIV. Modus operandi of the least-squares algorithm MINOPT
Jiří Militký and Milan Meloun	279	Multiparametric curve fitting XV. Statistical analysis and goodness-of-fit test by the least-squares algorithm MINOPT
Short Communication **Emil Halámek, Zbyněk Kobliha and Jan Souček**	287	Determination of dibenzo [*b*,*f*]-1,4-oxazepine by extraction spectrophotometry
Book Reviews	291	
Notices	i	

MARCH

D. S. Forsyth, D. Weber and K. Dalglish	299	The determination of organotin compounds in edible oils by gas chromatography-atomic absorption spectrometry

Denise Hatton and William F. Pickering	307	Separation of oxyanions of phosphorus by single column ion chromatography
J.-C. Viré, H. Zhang, G. Quarin, G. J. Patriarche, Z. Sentürk and G. D. Christian	313	Electrochemical behavior of zopiclone
Juan Carlos Cortina Villar, Agustín Costa García and Paulino Tuñón Blanco	325	Adsorptive stripping behaviour of mitoxantrone on carbon paste electrodes
Juan Carlos Cortina Villar, Agustín Costa García and Paulino Tuñón Blanco	333	Adsorptive stripping voltammetric behaviour of mitoxantrone on mercury electrodes
Purnendu K. Dasgupta, Harvey S. Bellamy and Hanghui Liu	341	Sandwich-type flow-through fiber-optic cells for optical absorbance measurements
Yansheng Zheng and Xingguang Su	347	Application of standardless analysis in graphite furnace atomic absorption spectrometry: determination of chromium
Joseph Wang, Jianmin Lu and Rossi Setiadji	351	Adsorptive stripping measurements of trace aluminum in the presence of cupferron
Joseph S. Alper and Robert I. Gelb	355	Application of nonparametric statistics to the estimation of the accuracy of Monte Carlo confidence intervals in regression analysis
Tapan K. Majumdar, Asoka Ranasinghe, Ling Lu, R. Graham Cooks, Wilmer K. Fife and Martel Zeldin	363	Structural characterization of poly(*N*-alkyl-4-vinylpyridinium) triflates using pyrolysis/tandem mass spectrometry
Ren-Min Liu, Dao-Jie Liu and Ai-Ling Sun	381	Application of ion-exchange-resin phase spectrophotometry to flow injection analysis system—I. Determination of trace zinc in hair of children
L. D. Martinez, E. Perino, E. J. Marchevsky and R. A. Olsina	385	Spectrophotometric determination of gadolinium(III) with 2-(5-bromo-2-pyridylazo)-5-diethylaminophenol (5-Br-PADAP)
Juliana Marcos, Angel Ríos and Miguel Valcárcel	391	Rapid automated determination of constants of solubility product and critical micelle concentrations by the flow-rate gradient technique
Zhiqiang Gao, Ari Ivaska, Taoxing Zha, Guangqing Wang, Peibiao Li and Zaofan Zhao	399	Voltammetric and amperometric determination of ascorbic acid at a chemically modified carbon fibre microelectrode
Nobutoshi Kiba, Hiroshi Suzuki, Eiichi Goto and Motohisa Furusawa	405	Flow-injection determination of 9,10-phenanthrenequinone with catalytic photometric detection
Guien Zhang, Jinghua Li, Dexue Fu, Daqing Hao and Pingping Xiang	409	Atomic absorption determination of traces of cadmium in urine after electrodeposition onto a tungsten wire
Narinder Kumar Agnihotri, Har Bhajan Singh, Rattan Lal Sharma and Vinay Kumar Singh	415	Simultaneous determination of beryllium and aluminium in mixtures using derivative spectrophotometry
Chemical Sensors		
S. Girotti, E. Ferri, S. Ghini, R. Budini, Giacomo Carrea, Roberto Bovara, Sandro Piazzi, Roberto Merighi and Aldo Roda	425	Bioluminescent flow sensor for *L*-phenylalanine determination in serum
Daniel Callahan and David S. Ballantine, Jr.	431	Investigation of relative humidity effects on the response behavior of a pH indicator-based OWG vapor sensor
Eithne Dempsey, Joseph Wang and Malcolm R. Smyth	445	Electropolymerised *o*-phenylenediamine film as means of immobilising lactate oxidase for a *L*-lactate biosensor
Huarui He, Hong Li, Georg Uray and Otto S. Wolfbeis	453	Non-enzymatic optical sensor for penicillins
Book Reviews	459	

APRIL

V Acknowledgement to Referees

Review
S. C. Chang, J. R. Stetter and C. S. Cha 461 Amperometric gas sensors

Agustin G. Asuero, Maria A. Herrador and A. Gustavo Gonzalez 479 Estimation of pH and autoprotolysis constants in mixtures of aliphatic amides with water: medium effect on the 4-aminoazobenzene system

J. Kragten, L. G. Decnop-Weever and P. Gründler 485 Mixed hydroxide complex formation and solubility of bismuth in nitrate and perchlorate medium

Anthony Houck, Scott Thomas and Dean K. Ellison 491 Liquid chromatographic determination of the known low level impurities in lovastatin bulk drug: an application of high–low chromatography

Daniel B. Taylor and Robert E. Synovec 495 Chromatographic determination of copper speciation in jet fuel

Naader Alizadeh and Mojtaba Shamsipur 503 Spectrophotometric study of Co(II), Ni(II), Cu(II), Zn(II), Cd(II) and Pb(II) complexes with some crown ethers in dimethylsulphoxide solution using murexide as a metallochromic indicator

K. K. Gupta, P. G. Kulkarni, George Thomas, N. Varadarajan, R. K. Singh and M. K. T. Nair 507 Spectrophotometric determination of uranium using ascorbic acid as a chromogenic reagent

Ren-Min Liu, Dao-Jie Liu and Ai-Ling Sun 511 Simultaneous determination of multicomponents by flow injection analysis. Determination of copper and zinc in serum by using zincon as colouring reagent

Henrique E. Toma and Rosana L. Sernaglia 515 Equilibria and spectroelectrochemical studies on the formation of multi-bridged tris(bipyrazine) ruthenium(II) complexes with ruthenium–EDTA groups

Andrew S. Mathuthu and James H. Ephraim 521 Calcium binding by fulvic acids studied by an ion selective electrode and an ultrafiltration method

Xijun Chang, Zhixing Su, Xingyin Luo and Guangyao Zhan 527 Synthesis of poly(acrylamidrazone-hydrazide) chelating fiber and application of enrichment–separation for traces of indium, tin, chromium, vanadium and titanium from solution samples

David Johnson and Barry Chiswell 533 A new method for the evaluation of the oxidizing equivalent of manganese in surface freshwaters

G. Chakrapani, D. S. R. Murty, B. K. Balaji and R. Rangaswamy 541 Spectrophotometric method for the determination of vanadium in uranium rich hydrogeochemical samples using pyridyl azo resorcinol (PAR)

Prasad L. Polavarapu, Simeon T. Pickard, Howard E. Smith, Thomas M. Black, Laurence D. Barron and Lutz Hecht 545 Determination of absolute configurations from vibrational Raman optical activity: *trans*-2,3-dimethylthiirane

Eluzir Moraes Pedrazzi and Ricardo Erthal Santelli 551 A flow injection system with ion-exchange for spectrophotometric determination of copper in rocks

Jian Wang, Thilivhali T. Ndou, Isiah M. Warner and Chou-Pong Pau 557 Spectroscopic analysis and drug-binding studies of the CNBr fragments of human serum albumin

Rajananda Saraswati and T. H. Rao 565 Dynamic coating ion-interaction chromatographic separation of some trace impurities in oxygen-free electronic copper (OFEC) by pre-column chelation with 4-(2-thiazolylazo)resorcinol

C. S. P. Sastry, B. S. Sastry J. Venkateswara Rao and R. Rama Krishna 571 Spectrophotometric methods for the determination of tolnaftate

M. G. El-Bardicy, Y. S. El-Saharty and M. S. Tawakkol 577 Bromometric determination of carbimazole

M. El-Sadek, S. El-Adl, M. Abou-Kull and S. M. Sakr 585 Spectrophotometric determination of ketoprofen in pharmaceutical preparations by means of charge transfer complex formation

Book Reviews 589

Corrigendum 591

MAY

Salah M. Sultan 593 Flow injection titrimetric analysis of vitamin C in pharmaceutical products

Kazuhiko Ozutsumi, Makoto Kurihara and Takuji Kawashima 599 Structure of iron(III) ion and its complexation with thiocyanate ion in *N,N*-dimethylformamide

Alessandro De Robertis and Silvio Sammartano 609 Ionic strength dependence of formation constants—XVI. Protonation of some nitrophenols and dihydroxybenzoic acids in aqueous (tetraethylammonium iodide) solution at 25°

M. T. Galceran and E. Moyano 615 Determination of oxygenated and nitro-substituted polycyclic aromatic hydrocarbons by HPLC and electrochemical detection

Salah M. Sultan and Fakhr Eldin O. Suliman 623 Flow injection method for the assay of the anti-arrhythmic procainamide HCl in drug formulations utilizing statistical optimization techniques

Concetta De Stefano, Silvio Sammartano and Antonio Gianguzza 629 Mixed proton complexes of aminoacids and carboxylic ligands in aqueous solution

Ruo-Mei Gao, Zhi-Qiang Zhao, Qing-Ze Zhou and Dong-Xia Yuan 637 Simultaneous determination of hexavalent and total chromium in water and plating baths by spectrophotometry

Xiaojing Ding and Chengguang Fu 641 Determination of Fe(III), Al(III), Mo(VI) and W(VI) with tetracycline by reversed-phase high-performance liquid chromatography

João P. S. Cabral 645 The use of analysis of covariance to assess repeatability in electrode performance

Randjel P. Mihajlović, Radmila M. Džudović and Vilim J. Vajgand 649 Determination of autoprotolysis constants of ketones using hydrogen-palladium generator electrode

V. S. S. Rao, S. C. S. Rajan and N. Venkateswara Rao 653 Spectrophotometric determination of arsenic by molybdenum blue method in zinc–lead concentrates and related smelter products after chloroform extraction of iodide complex

Nobutoshi Kiba, Yukio Oyama and Motohisa Furusawa 657 Determination of aliphatic amino acids in serum by HPLC with fluorimetric detection using co-immobilized enzyme reactor

Vesa Virtanen and Lauri H. J. Lajunen 661 Determination of clodronate in aqueous solutions by HPLC using postcolumn derivatisation

Marit Andersson and Åke Olin 669 A modified standard addition method in X-ray fluorescence spectrometry

S. Bhattacharjee, P. Dasgupta, S. N. Jha, A. S. Rao, K. K. Gupta and L. P. Pandey 675 Computational elimination of interelemental interference in the analysis of copper, cobalt and nickel in polymetallic sea bed nodules by flame atomic absorption spectrometry

Salah M. Sultan 681 Computer assisted optimization of a flow-injection method for the assay of promethazine, chlorpromazine and trimeprazine in drug formulations

Prasad L. Polavarapu, Simeon T. Pickard, Howard E. Smith and Raghottama S. Pandurangi 687 Determination of absolute configurations from vibrational circular dichroism: (+)-2-methylthiirane-3,3-d_2

M. T. Siles Cordero, A. Garcia de Torres and J. M. Cano Pavon 691 Preconcentration of cadmium, cobalt, copper, nickel and zinc by solvent extraction into methyl isobutyl ketone with 1,5-bis [1-(2-pyridyl) ethylidene] thiocarbonohydrazide and 1,5-bis [phenyl-(2-pyridyl) methylene] thiocarbonohydrazide

Mojtaba Shamsipur, Jahanbakhsh Ghasemi, Fatemaeh Tamaddon and Hashem Sharghi 697 Spectrophotometric determination of acidity constants of some anthraquinones and anthrones in methanol–water mixtures

Partha Chattopadhyay and B. N. Sahoo	701	Direct flame atomic absorption spectrophotometric determination of Mn in rocks, nodules, soils and related materials using tartaric acid–KCl–$SrCl_2$ mixture
M. Kamburova	707	Spectrophotometric determination of chromium with iodonitrotetrazolium chloride and tetrazolium violet
M. Kamburova	713	Spectrophotometric determination of chromium (VI) with Methylene Blue
M. Kamburova	719	Spectrophotometric determination of mercury in soils with triphenyltetrazolium chloride
M. Kamburova	725	Iodnitrotetrazolium chloride—a new analytical reagent for determination of chromium
Annotation		
Inge Rokkjær, Boy Hoyer and Nina Jensen	729	Interference by volatile nitrogen oxides in the determination of mercury by flow injection cold vapor atomic absorption spectrometry
Chemical Sensors		
Orlando Fatibello Fo and Antonio José Moraes Guaritá dos Santos	737	Potentiometric determination of saccharin in dietary products using mercurous nitrate as titrant
Heping Zhang and James F. Rusling	741	Preconcentration and catalysis in reduction of aliphatic organohalides using surfactant-coated electrodes
I. Kuselman and O. Lev	749	Organically-doped sol–gel based tube detectors: determination of iron(II) in aqueous solutions
Satyajit Kar and Mark A. Arnold	757	Air-gap fiber-optic ammonia gas sensor
P. V. C. Rao and V. J. Koshy	761	Voltammetric determination of indium in alumina supported catalysts
Terence J. Cardwell, Robert W. Cattrall, Leslie W. Deady, Maria Dorkos and Gregory R. O'Connell	765	A fast response membrane-based pH indicator optode
Book Reviews	769	
Notices	i	

JUNE

Editorial	V	
S. Kartikeyan, T. Prasada Rao, C. S. P. Iyer and A. D. Damodaran	771	Spectrophotometric determination of trace amounts of cadmium in high purity zinc materials with iodide and rhodamine 6G
Darren R. Dunphy and Robert E. Synovec	775	High-speed chromatographic analysis of high-fructose corn syrup for process monitoring
K. N. Ramachandran, R. Kaveeshwar and V. K. Gupta	781	Spectrophotometric determination of selenium with 6-amino-1-naphthol-3-sulphonic acid (J-acid) and its application in trace analysis
Dwight W. Underhill	785	Convective transport in diffusive samplers
J. G. Sen Gupta	791	Determination of noble metals in silicate rocks, ores and metallurgical samples by simultaneous multi-element graphite furnace atomic absorption spectrometry with Zeeman background correction
Yukihiro Koshino and Akir Narukawa	799	Determination of manganese, iron and copper in sodium by chemical modification/graphite furnace atomic absorption spectrometry
B. Rusdiarso, A. Messaoudi and J. P. Brunette	805	Synergistic extraction of cobalt (II) from cesium containing aqueous solutions with mixtures of 4-acyl-pyrazol-5-ols and crown ethers
Ezzat M. Abdel-Moety, Mohammad A. Abounassif, El-Rasheed A. Gad-Kariem and Nashaat A. Khattab	811	Simultaneous determination of amoxycillin and dicloxacillin in capsules by potentiometric titrimetry and high-performance liquid chromatography
Peter M. May and Kevin Murray	819	JESS, a joint expert speciation system—III. Surrogate functions

A. V. Padarauskas and L. G. Kazlauskiene 827 Ion-pair chromatographic determination of chromium(VI)

Vlastimil Kubáň and Purnendu K. Dasgupta 831 Comparison of photometry and conductometry for the determination of total carbonate by gas permeation flow injection analysis

A. M. El-Wakil, A. B. Farag and M. S. El-Nahas 841 Iodometric microgram determination of chromium(III) and (VI) by use of chemical amplification reactions

Rossi Setiadji, Joseph Wang and Gilberto Santana-Rios 845 Determination of trace thorium using catalytic–adsorptive stripping voltammetry of the thorium–cupferron complex

Huaiyou Wang, Jiancheng Ren and Yici Zhang 851 Use of *P*-dimethylaminobenzalhyde as a coloured reagent for determination of gentamycin

Eva Förster, Manuel Silva, Mathias Otto and Dolores Pérez-Bendito 855 Kinetic enzymatic determination of ethanol/methanol mixtures by the stopped-flow technique

H. A. Azab 863 Assignment of standard pH values [pH*(s)] to buffers in 50 mass % methanol + water from 288.15 to 308.15 K

Christopher K. Y. Lam, Yunke Zhang, Marianna A. Busch and Kenneth W. Busch 867 Design and performance of a new continuous-flow sample-introduction system for flame infrared-emission spectrometry: applications in process analysis, flow injection analysis, and ion-exchange high-performance liquid chromatography

Kimberly S. Farah and Joseph Sneddon 879 Optimization of a simultaneous multi-element atomic absorption spectrometer

Xu Yanjun, Chen Xingguo and Hu Zhide 883 Resin phase spectrophotometry of beryllium by an optical fiber and beryllon II

Bingyao Sun, Yingzhi Ye, Hongwu Huang and Yan Bai 891 Potentiometric determination of iron using a fluoride ion-selective electrode—the application of the Apple II-ISE intelligent ion analyzer

Wang Naixing, Liang Weian and Qi Ping 897 Simultaneous third-derivative spectrophotometric determination of copper and nickel in iron alloys and aluminium alloy

Dan Wu and Robert J. Hurtubise 901 Fluorescence properties of 1-naphthol, 2-naphthol and 1,2,3,4-tetrahydronaphthol in aqueous alcohol solvents with and without β-cyclodextrin

S. Dye, D. Phillips, D. Woodford and I. Barrow 909 Gravimetric determination of free carbon and silicon carbide in silica fume

Manjusha A. Karve and Shripad M. Khopkar 913 Liquid–liquid extraction of niobium(V) in the presence of other metals with high molecular mass amines and ascorbic acid

Ismail I. Hewala 919 Difference spectrophotometric assay of benzaldehyde in benzyl alcohol

Jie Zhou, Shi-Fu Zou and Wei-An Liang 925 Spectrophotometric determination of equilibrium constants of two mutual competitive reactions by the method of isosbestic points

A. N. Masi and R. A. Olsina 931 Preconcentration and determination of Ce, La and Pr by X-ray fluorescence analysis, using Amberlite XAD resins loaded with 8-quinolinol and 2-(2-(5 chloropyridylazo)-5-dimethylamino)-phenol

Chemical Sensors

G. Patonay, G. A. Casay, M. Lipowska and L. Strekowski 935 Spectroscopic studies of a near-infrared absorbing pH sensitive aminodienone–carbocyanine dye system

Jianxun Zhou and Erkang Wang 943 Electrocatalysis and determination of hydrazine compounds in liquid chromatography at a mixed-valent cobalt oxide/cyanocobaltate film electrode

Book Reviews 949

JULY

Ernö Lindner, Vasile V. Cosofret, Robert P. Kusy, Richard P. Buck, Thomas Rosatzin, Ulrich Schaller, Wilhelm Simon, Judit Jeney, Klára Tóth and Ernö Pungor 957 Responses of H^+ selective solvent polymeric membrane electrodes fabricated from modified PVC membranes

Jingfu Liu and Huichang Ma	969	Investigation of the composition of complexes and the stoichiometry of non-complex reactions by flow injection method
F. Vanhaecke, J. Goossens, R. Dams and C. Vandecasteele	975	The determination of molybdenum in a sea water candidate reference material by inductively coupled plasma-mass spectrometry
Hyung-Keun Chung, Purnendu K. Dasgupta and John N. Marx	981	Spectrophotometric determination of H_2O_2 with 1-anilinonaphthalene-8-sulfonic acid and 4-aminoantipyrine with hematin as catalyst
S. V. Prabhu, J. M. Ballard, R. A Reamer and D. K. Ellison	989	Isolation and identification of impurities in L-696,229 drug substance
Nobutoshi Kiba, Hiroshi Suzuki and Motohisa Furusawa	995	Flow-injection determination of L-tyrosine in serum with immobilized tyrosinase
L. Kaila, L. H. J. Lajunen, E. N. Rizkalla and J. Eloranta	999	Thermodynamics of complexation of magnesium and calcium ions with dichloromethylenediphosphonate
Ka-Keung Choi and Shiu-Fai Luk	1005	Complexometric determination of magnesium oxide in flyash blended cement
Nianqin Jie, Jinghe Yang and Fanqin Meng	1009	Fluorimetric determination of nitrite
Zhong-Liang Zhu, Zhi-Cheng Gu and Xian-de Wang	1013	Simplified data processing for the simultaneous determination of catalysts by catalytic kinetics
W. Regenstein	1019	Determination of activity coefficients of termolecular complex formation
Nadia M. A. Mahfouz and Kamla M. Emara	1023	Colorimetric determination of isoniazid and its pharmaceutical formulations
Scott J. Bauer and R. Graham Cooks	1031	Performance of an ion trap mass spectrometer modified to accept a direct insertion membrane probe in analysis of low level pollutants in water
Guien Zhang, Ding Xi Cheng and Suling Feng	1041	Study on catalytic fluorimetric determination of trace manganese
Hiromichi Yamada and Chizuko Kato	1049	Solvent and steric effects on the extraction of copper(II) with pivalic acid
A. Molina-Diaz, J. M. Herrador-Mariscal, M. I. Pascual-Reguera and L. F. Capitan-Vallvey	1059	Determination of traces of aluminium with chrome azurol S by solid-phase spectrophotometry
L. Lahuerta Zamora and J. Martinez Calatayud	1067	Immobilization of reagents by polymeric materials. Determination of metamizol
Zhenhui Wang, Hongxun Zhou and Shuping Zhou	1073	Study on the determination of metronidazole in human serum by adsorptive stripping voltammetry
Soulin Lin and Hwiping Hwang	1077	The design of an on-line flow injection system with a gravitational phase separator for flame atomic absorption spectrometry and its analytical performance
Shihe Li, Shengquan Li and Anjia Chen	1085	Spectrophotometric determination of trace copper with a Cu-diethyldithiocarbamate-β-cyclodextrin colour system
J. J. Cruywagen and R. F. van de Water	1091	The hydrolysis of lead(II). A potentiometric and enthalpimetric study
Edward P. C. Lai, Barbara Wong and Victoria A. VanderNoot	1097	Preservation of solid mercuric dithizonate samples with polyvinyl chloride for determination of mercury(II) in environmental waters by photochromism-induced photoacoustic spectrometry
Pan Fuxing, Tong Dezhi, Ren Ming and Ma Heying	1107	Determination of B, Si, Cr, Mo, Th and Hf in UF_6 by end-on viewed ICP-AES
L. M. B. C. Álvares-Ribeiro, A. A. S. C. Machado, J. Alonso, J. Bartroli and M. del Valle	1113	Comparison of the simplex and Powell methods with a weighted response function for the optimization of FIA systems

Short Communication
Luminita Vladescu and Renate Lerch-Gurguta 1127 Spectrophotometric determination of Fe (III) in alkaline solutions without neutralization

Chemical Sensors
Peig Ward and Malcolm R. Smyth 1131 Development of a polypyrrole-based amperometric detector for the determination of certain anions in water samples

Minas S. Barbarakis, Truis Smith-Palmer, Leonidas G. Bachas, Sun-Yung Chen and B. Wieb Van Der Meer 1139 Enhancement of the emission intensity of fluorophore-labeled avidin by biotin and biotin derivatives. Evaluation of different fluorophores for improved sensitivity

Notice i

AUGUST

Obituary V

Editorial VII

Hengwu Chen, Fulong Tang, Chang Gu and Ian D. Brindle 1147 The influence of chelating reagents on plumbane generation: determination of lead in the presence of PAN-S

A. Amine, J.-M. Kauffmann, G. J. Patriarche and G. D. Christian 1157 Characterization of mediated and non-mediated oxidase enzyme based glassy carbon electrodes

Nobutoshi Kiba, Mie Oguchi and Motohisa Furusawa 1163 Determination of L-malate in wine by flow-injection with co-immobilized malate dehydrogenase/oxaloacetate decarboxylase

Pércio A. M. Farias, Aniy K. Ohara, Iracema Takase, Sergio L. C. Ferreira and Jon S. Gold 1167 Cathodic adsorptive stripping voltammetry of nickel complexed with hydroxynaphthol blue at a static mercury drop electrode

Karim D. Khalaf, Jose Sancenon and Miguel de la Guardia 1173 Spectrophotometric flow injection determination of formetanate and *m*-aminophenol in water after reaction with *p*-aminophenol

Xiangqun Zeng, Shuchang Lin and Naifei Hu 1183 Trace measurement of dipyridamole by adsorptive stripping voltammetry

Emil Halámek, Zbyněk Kobliha and Viliam Földeši 1189 Determination of dibenzo[b,f]-1,4-oxazepine by diazotization cleavage of azomethine bond

Peter C. Hauser and David W. L. Chiang 1193 A photometric detector based on a blue light-emitting diode

J. A. Murillo Pulgarín and A. Alañón Molina 1201 Rapid assay for procaine penicillin G in pharmaceutical dosages by spectrofluorimetry

D. A. Wynn 1207 A complete dissolution procedure for Sn–Pb solders using nitric and hydrochloric acids with simultaneous determination of major and trace elements by ICP/OES

Stergios A. Halvatzis, Meropi M. Timotheou-Potamia and Constantinos E. Efstathiou 1213 Kinetic study of *N*-bromosuccinimide reactions and kinetic determination of pyridoxine using a bromide-selective electrode

Li Xiao and Wenrui Jin 1221 Investigations on adsorption potentiometry—Part VIII. Determination of ultratrace copper in food by derivative adsorption chronopotentiometry

Konstantin B. Yatsimirskii, Peter E. Strizhak and Tatyana S. Ivaschenko 1227 Potential of chaotic chemical systems in nanotrace analysis based on the Belousov–Zhabotinskii reaction (BrO_3^-—malonic acid—ferroin). Determination of manganese(II)

Asoka Ranasinghe, Ling Lu, Tapan K. Majumdar, R. Graham Cooks, Wilmer K. Fife, Slawomir Rubinsztajn and Martel Zeldin 1233 Structural characterization and sequence distributions of polysiloxanes using pyrolysis MS/MS

Stergios A. Halvatzis and Meropi M. Timotheou-Potamia 1245 Continuous-flow chemiluminometric determination of ammonium ion in fertilizers

Ruo Yuan, Ya-Qin Chai, Guo-Li Shen and Ru-Qin Yu	1255	Chemically modified electrode based on poly[tetra(4-aminophenyl)-porphyrin] as a pH sensor
J. P. Shukla, Anil Kumar and R. K. Singh	1261	Solvent extraction of uranium(VI) into toluene by dicyclohexano-18-crown-6 from mixed aqueous-organic solutions
A. C. Spinola Costa, Sérgio L. C. Ferreira, Maria G. M. Andrade and Ivon P. Lobo	1267	Simultaneous spectrophotometric determination of nickel and iron in copper-base alloy with bromo–PADAP
Gaston East and Pablo Cofre	1273	Determination of gallium by square-wave voltammetry anodic stripping, based on the electrocatalytic action of 2,2′-bipyridine in dimethylsulphoxide: comparison with an aqueous $NaSCN/NaClO_4$ electrolyte
S. D. Nikolić, E. B. Milosavljević, J. L. Hendrix and J. H. Nelson	1283	Indirect determination of tetrahydroborate (BH_4^-) by gas-diffusion flow injection analysis with amperometric detection
Osama H. Abdelmageed and Pakinaz Y. Khashaba	1289	Spectrophotometric determination of clotrimazole in bulk drug and dosage forms
Short Communication		
Zoja Ilić, Julijana Georgijević and Veljko Georgijević	1295	Matrix effect of barium on spectral line intensities and detection limits in inductively coupled plasma atomic emission spectroscopy
Chemical Sensors		
M. G. Lavagnini, D. Moscone, G. Palleschi, D. Compagnone, and C. Cremisini	1301	Amperometric lysine bioprobes analysis in feeds

SEPTEMBER

Obituary	1307	
Review		
Hiroshi Tsukube	1313	Double armed crown ethers and armed macrocycles as a new series of metal-selective reagents: a review
C. M. Wai, Yuehe Lin, Russell Brauer, Shaofen Wang and Werner F. Beckert	1325	Supercritical fluid extraction of organic and inorganic mercury from solid materials
Hanghui Liu, Purnendu K. Dasgupta and Hong J. Zheng	1331	High performance optical absorbance detectors based on low noise switched integrators
M. Martinez, N. Miralles, A. Sastre and E. Bosch	1339	Dissociation constants of organophosphinic acid compounds
I. I. Stewart and A. Chow	1345	The separation of tellurium and selenium by polyurethane foam sorbents
Hooshang Parham and Mojtaba Shamsipur	1353	Spectrofluorometric study of thallium (I) complexes with several macrocyclic ligands in methanol solution
M. V. Suryanarayana, S. Venkataraman, M. Satyanarayana Reddy, B. Parthasaradhi Reddy, C. S. P. Sastry and G. L. David Krupadanam	1357	Evaluation of Astemizole purity by HPLC
T. Pérez-Ruiz, C. Martínez-Lozano, V. Tomás and C. Sidrach de Cardona	1361	Flow-injection fluorimetric determination of trimeprazine and trifluoperazine in pharmaceutical preparations
Alain Berthod, Chau-Dung Chang and Daniel W. Armstrong	1367	β-Cyclodextrin chiral stationary phases for liquid chromatography. Effect of the spacer arm on chiral recognition
Ali A. Ensafi and M. Samimifar	1375	Kinetic spectrophotometric determination of low levels of nitrite by catalytic reaction between pyrogallol red and bromate
J. A. Squella, B. K. Cassels, M. Arata, M. P. Bavestrello and Luis J. Nuñez-Vergara	1379	Electrochemical oxidation of methylenedioxyamphetamines
William J. Horvath and Carmen W. Huie	1385	Screening of urinary coproporphyrin using cloud point extraction and chemiluminescence detection

J. J. Berzas Nevado, J. Rodriguez Flores and M. J. Villaseñor Llerena	1391	Simultaneous determination of Tartrazine and Sunset Yellow by derivative spectrophotometry and ratio spectra derivative
A. Lopez Molinero, A. Ferrer and J. R. Castillo	1397	Volatilization of methyl borate in iron matrix. Determination of boron in steel by ICP atomic emission spectrometry
M. Inés Toral, Pablo Richter and Lorena Silva	1405	Determination of trace amounts of cobalt by solvent extraction—second derivative spectrophotometry
M. Sivasankaran Nair, P. Thillai Arasu, M. Sankaranarayana Pillai and C. Natarajan	1411	Mixed ligand complexes involving sulphur containing ligands—Part II. Ternary complexes of Zn(II) involving *L*-cysteine/*D*-penicillamine/*L*-cysteic acid and imidazoles
Rafael J. García-Villanova and Rosa M. García Estepa	1419	Fluorimetric determination of diacetyl and 2,3-pentanedione with isoniazide and a zirconium salt
Maria Nordén, James H. Ephraim and Bert Allard	1425	The binding of strontium and europium by an aquatic fulvic acid—ion exchange distribution and ultrafiltration studies
G. S. Reddi, C. R. M. Rao and H. S. Muralidhar	1433	Suitability of nitric–sulphuric acid decomposition for the determination of tungsten and molybdenum in geochemical exploration
Chemical Sensors		
Johan Bobacka, Andrzej Lewenstam and Ari Ivaska	1437	Potentiometric response of poly(3-octylthiophene), poly(3-methylthiophene) and polythiophene in aqueous solutions
Cui Hongbo	1445	Atropinium scopolaminum integrated microconduits in a potentiometric analytical system
Michael L. Hitchman and Frazier W. M. Nyasulu	1449	Potentiometric monitoring of proteins—Part 6. Indirect potentiometry
Pilar R. Chamorro and Rafael Carmelo Díaz	1461	A double-membrane ephedrine selective electrode based on ephedrine-tetraphenylborate in poly (vinyl chloride) resin
Ryszard Baranowski and Tomasz Kubik	1465	Potentiometric determination of chlorides with an "Air-Gap" cyanide sensor
Book Reviews	1473	

OCTOBER

Rajananda Saraswati, Charles M. Beck and Michael S. Epstein	1477	Determination of mercury in zinc ore concentrate reference materials using flow injection and cold-vapor atomic absorption spectrometry
F. Nil Ertas, Arnold G. Fogg, Josino C. Moreira and Jiri Barek	1481	Differential pulse cathodic stripping voltammetry of the copper complexes of glycyl–L-histidyl–glycine at a hanging mercury drop electrode
Alain Berthod and Nathalie Schmitt	1489	Water–organic solvent systems in countercurrent chromatography: liquid stationary phase retention and solvent polarity
Nibedita Chakraborti and S. K. Roy	1499	Extraction of manganese(II) with dithizone and potassium thiocyanate on foam sorbents for spectrophotometric determination in silicates
Antonio Velasco, Xiong Rui, Manuel Silva and Dolores Pérez-Bendito	1505	Simultaneous kinetic determination of phenols by use of the Kalman filter
B. S. Mohite, J. M. Patil and D. N. Zambare	1511	Column chromatographic separation of molybdenum (VI) from alloys with poly-(dibenzo-18-crown-6) from a hydrochloric acid medium
Tarasankar Pal and Nikhil R. Jana	1519	First derivative spectrophotometry for individual and simultaneous determination of magnesium(II) and copper(II) using emodin(1,3,8-trihydroxy-6-methylanthraquinone) as reagent
S. L. Bhongade and A. V. Kasture	1525	Extractive spectrophotometric determinations of some phenothiazine derivatives in pharmaceutical preparations
Marina M. Santos Filha, Boaventura F. Reis, Francisco J. Krug, Carol H. Collins and Nivaldo Baccan	1529	Sulphate preconcentration by anion exchange resin in flow injection and its turbidimetric determination in water

M. N. Gandhi, N. V. Deorkar and S. M. Khopkar	1535	Solvent extraction separation of cobalt(II) from nickel and other metals with Cyanex 272
Raul Morales, Carlos Blanco and Kenneth G. Furton	1541	The gas–liquid chromatographic stationary phase properties of liquid organic salts: anomalous selectivity variation when employing the Rohrschneider/McReynolds system
Sheng-Zong Chen, Feng Xu, Hong Zhang and Zheng-Qi Zhang	1551	Voltammetric determination of buspirone
Zhang Fan and Lin Qingxiong	1557	A new chemiluminescence system: MnO_4^-–Na_2CO_3–KOH and its application in the determination of manganese
Chemical Sensors		
M. Conceição B. S. M. Montenegro, José Luis F. Costa Lima, Ivanildo L. Mattos, Graciliano Oliveira Neto, José A. Gomes Neto and Elias A. G. Zagatto	1563	Development of a tubular periodate electrode for flow-injection determination of glycerol
Hui-Hui Zeng, Ke-Min Wang, Cheng-Lin Liu and Ru-Qin Yu	1569	A reversible optode membrane for picric acid based on the fluorescence quenching of pyrene
J. P. Hämäläinen, J. L. Tummavuori and M. J. Aho	1575	Determination of NH_3 in pyrolysis gases by ammonia selective electrode
Book Reviews	1583	
Notices	i	

NOVEMBER

ANALYTICAL CHEMISTRY IN SPAIN

	V	Editorial
M. Valcárcel and M. D. Luque de Castro	1587	Foreword
F. Grases and C. Genestar	1589	Crystallization of organic crystals with "tailor-made" inhibitors. Determination of *L*-lysine using *L*-glutamic acid as substrate
José A. García Mesa, M. D. Luque de Castro and Miguel Valcárcel	1595	Determination of the oxidative stability of olive oil by use of a robotic station
E. Gómez, A. Cladera, J. M. Estela and V. Cerda	1601	Multidata treatment applied to the simultaneous resolution of catechol–resorcinol mixtures by kinetic enzymatic processes
M. de la Guardia, V. Carbonell, A. Morales-Rubio and A. Salvador	1609	On-line microwave-assisted digestion of solid samples for their flame atomic spectrometric analysis
J. M. Barrero, M. C. Moreno-Bondi, M. C. Pérez-Conde and C. Cámara	1619	A biosensor for ferric ion
T. Pérez-Ruíz, C. Martínez-Lozano, V. Tomás and O. Val	1625	Application of photochemical inhibition in flow injection systems: determination of epinephrine and *L*-dopa
I. Medina, E. Rubí, M. C. Mejuto and R. Cela	1631	Speciation of organomercurials in marine samples using capillary electrophoresis
J. A. Acuña, C. de la Fuente, M. D. Vãzquez, M. L. Tascón and P. Sánchez-Batanero	1637	Voltammetric determination of piroxicam in micellar media by using conventional and surfactant chemically modified carbon paste electrodes
J. M. Espinosa Almendro, C. Bosch Ojeda, A. Garcia de Torres and J. M. Cano Pavon	1643	Solvent extraction of cadmium as a previous step for its determination in biological samples by electrothermal atomization atomic absorption spectrometry
E. Bermejo, A. Zapardiel, J. A. Pérez, A. Huerta and L. Hernández	1649	Voltammetric studies of a psychotropic drug with nitro groups. Determination of flunitrazepam in urine using HMDE

A. Munoz de la Pena, F. Salinas, M. J. Gomez, M. Sanchez-Pena and I. Duran-Meras	1657	Host–guest stabilized room temperature phosphorescence in β-cyclodextrin/bromoalcohol solutions from 2-naphthyl-oxy-acetic acid and 1-naphthyl-acetic acid
Gael Durand and Damia Barcelo	1665	Solid-phase extraction using C_{18} bonded silica disks: interferences and analysis of chlorotriazines in seawater samples
M. Blanco, J. Coello, H. Iturriaga, S. Maspoch and C. de la Pezuela	1671	Determination of ascorbic acid in pharmaceutical preparations by near infrared reflectance spectroscopy
Ignacio López García, Jesus Arroyo Cortéz and Manuel Hernández Córdoba	1677	Flow injection flame atomic absorption spectrometry for slurry atomization. Determination of iron, calcium and magnesium in samples with high silica content
R. D. Bautista, F. Jimenez, A. I. Jimenez and J. J. Arias	1687	Multicomponent analysis: comparison of various graphical and numerical methods
Luis Fermin Capitán-Vallvey, Jamal Rohand, Alberto Navalón, Ramiro Avidad and José Luis Vilchez	1695	Simultaneous determination of carbaryl and *o*-phenylphenol residues in waters by first-derivative synchronous solid-phase spectrofluorimetry
Bernardo Moreno Cordero, José Luis Pérez Pavón, Carmelo García Pinto and Mª Esther Fernández Laespada	1703	Cloud point methodology: a new approach for preconcentration and separation in hydrodynamic systems of analysis
J. S. Esteve-Romero, E. F. Simo-Alfonso, M. C. Garcia-Alvarez-Coque and G. Ramis-Ramos	1711	Conventional and thermal lens spectrophotometric determination of *p*-aminobenzoic acid and arylamine diuretics previous azodye formation in a micellar medium
M. A. Martin, B. del Castillo and P. Prados	1719	13-Hydroxyacenaphto[1,2-b]quinolizinium bromide as a new fluorescence indicator
J. A. Munoz Leyva, J. L. Hidalgo Hidalgo de Cisneros and D. Garcia Gomez de Barreda	1725	A coated piezoelectric crystal sensor for acetic acid vapour determination
R. Jimenez-Prieto, A. Velasco, M. Silva and D. Perez-Bendito	1731	Kalman filtering of data from first- and second-order kinetics
L. M. Cabalin, A. Ruperez and J. J. Laserna	1741	Surface-enhanced Raman spectrometry for detection in liquid chromatography using a windowless flow cell
J. A. Remolà, M. S. Larrechi and F. X. Rius	1749	Chemometric characterization of 5th century A.D. amphora-producing centres in the Mediterranean
A. Sanz-Medel, M. R. Fernandez de la Campa, M. C. Valdes-Hevia y Temprano, B. Aizpun Fernandez and Y. M. Liu	1759	Surfactant-based ordered media in analytical atomic spectrometry
C. Nerin, M. Martinez, B. Pons and J. Cacho	1769	Behaviour of solid adsorbents for the sampling of atmospheric organochlorine compounds

DECEMBER

M. Guadalupe García, Alvaro García and Ignacio González	1775	Extraction and electrochemical quantification of the active ingredient (diazepam) in pharmaceutical products
Rita Casula, Guido Crisponi, Franco Cristiani, Valeria Nurchi, Mariano Casu and Adolfo Lai	1781	Characterization of the ionization and spectral properties of sulfonephthalein indicators. Correlation with substituent effects and structural features
Th. Wandlowski, D. Gosser Jr., E. Akinele, R. de Levie and V. Horak	1789	The electrochemical oxidation of 2,6-dichloro-1,4-phenylenediamine
Salvador Garrigues, Máximo Gallignani and Miguel de la Guardia	1799	Simultaneous determination of acetylsalicylic acid and caffeine in pharmaceuticals by flow injection with Fourier transform infrared detection
S. Raheem and K. M. M. Krishna Prasad	1809	Evaluation of colour quality of complexometric indicators in the titration of nickel(II) with EDTA by tristimulus colorimetry

Manuel C. Carneiro, Reinaldo C. Campos and Adilson J. Curtius	1815	Determination of Sb, Ni and V in slurry from airborne particulate material collected on filter by graphite furnace atomic absorption spectrometry
Zhi-Liang Jiang	1823	A novel and highly sensitive catalytic method for the determination of ultratrace amounts of gold in ores with linear scan voltammetry at a DME
Jaroslav P. Matousek and H. Kipton J. Powell	1829	Analyte preconcentration and separation from small volumes by electrodeposition for electrothermal atomic absorption spectroscopy
N. Abo El-Maali, M. A. Ghandour and M. Khodari	1833	Electroreduction and determination of Pipril (Piperacillin) in both aqueous and biological samples
Xiu-ping Yan, Zhe-ming Ni, Xiao-tao Yang and Guo-qiang Hong	1839	Kinetics of indium atomization from different atomizer surfaces in electrothermal atomic absorption spectrometry (ETAAS)
Donglan Ma, Yuying Dong and Yulu Wang	1847	A new sensitive reagent for identifying Ag^{+} and Hg^{2+}
Narinder Kumar Agnihotri, Vinay Kumar Singh and Har Bhajan Singh	1851	Simultaneous derivative spectrophotometric determination of thorium and uranium in a micellar medium
A. M. Garcia Rodriguez, A. Garcia de Torres, J. M. Cano Pavon and C. Bosch Ojeda	1861	Simultaneous spectrophotometric determination of cadmium, copper and zinc
Ahsan Saeed, Seema Haque and Saidul Zafar Qureshi	1867	Resin bead detection and spectrophotometric determination of oxyphenbutazone with *p*-dimethylaminocinnamaldehyde: application to bulk drug and dosage forms
A. Ravindra Babu, D. Murali Krishna and R. Sambasiva Rao	1873	Chemometric investigation of complex equilibria in solution phase II: sensitivity of chemical models for the interaction of AADH and FAH with Ni(II) in aqueous medium
Yan Rong, Lu Xiaohua and Shi Wenzhao	1883	Polarographic determination of Ce(III) and Tm(III) using rare earth–DBF–chlorophosphonazo complex

1993 Winter Conference on Flow-Injection Analysis

Elo H. Hansen and Allan Jensen	1891	A generic FIA system for determination of enzyme activities: assay of cellulase
Laurie Locascio-Brown and Steven J. Choquette	1899	Measuring estrogens using flow injection immunoanalysis with liposome amplification
Joseph Wang	1905	Organic-phase biosensors—new tools for flow analysis: a short review
James A. Cox and Krzysztof Lewinski	1911	Flow injection amperometric determination of hydrogen peroxide by oxidation at an iridium oxide electrode
Bernhard Welz, Youzhao He and Michael Sperling	1917	Flow injection on-line acid digestion and pre-reduction of arsenic for hydride generation atomic absorption spectrometry—a feasibility study
Tiezheng Guo and Jörn Baasner	1927	On-line microwave sample pretreatment for the determination of mercury in blood by flow injection cold vapor atomic absorption spectrometry
Chaim N. Yarnitzky, Naphthali Klein and Orit Cohen	1937	Automated titrations with an alternate flow exponential speed variation system
Miguel Guzman and Bruce J. Compton	1943	Use of sequential injection technique and robotics for the automation of rhFXIII fluorometric activity assay. Case study
Robert E. Malick, John G. Dorsey, T. L. Chester and D. P. Innis	1951	Investigation of carbon dioxide modified supercritical and near supercritical carrier streams for flow injection systems
K. J. Smith and G. E. Pacey	1961	Reverse dual phase gas diffusion flow injection analysis
Pablo Carrero, J. L. Burguera, M. Burguera and C. Rivas	1967	A time-based injector applied to the flow injection spectrophotometric determination of boron in plant materials and soils
Klaus R Koch and Derek Auer	1975	Determination of platinum and palladium in strongly acid solution by means of flow injection analysis

I. D. McKelvie, B. T. Hart, T. J. Cardwell and R. W. Cattrall	1981	Speciation of dissolved phosphorus in environmental samples by gel filtration and flow-injection analysis
Book Reviews	1995	
Notices	i	

AUTHOR INDEX

Abdel-Moety E. M., 811
Abdelmageed O. H., 1289
Abou-Kull M., 585
Abounassif M. A., 811
Acuña J. A., 1637
Agnihotri N. K., 415, 1851
Aho M. J., 1575
Akinele E., 1789
Alizadeh N., 503
Allard B., 1425
Almendro J. M. E., 1643
Alonso J., 1113
Alper J. S., 355
Álvares-Ribeiro L. M. B. C., 1113
Amine A., 1157
Anderegg G., 243
Andersson M., 669
Andrade M. G. M., 1267
Arasu P. T., 1411
Arata M., 1379
Arias J. J., 1687
Armstrong D. W., 1367
Arnold M. A., 757
Arunachalam J., 135
Asuero A. G., 479
Auer D., 1975
Avidad R., 1695
Azab H. A., 862

Baasner J., 1927
Babu A. R., 1873
Baccan N., 1529
Bachas L. G., 1139
Bai G., 195
Bai Y., 891
Balaji B. K., 541
Ballantine Jr. D. S., 431
Ballard J. M., 989
Baranowski R., 1465
Barbarakis M. S., 1139
Barcelo D., 1665
Barek J., 1481
de Barreda D. G. G., 1725
Barrero J. M., 1619
Barron L. D., 545
Barrow I., 909
Bartroli J., 1113
Bauer S. J., 1031
Bauer-Wolf E., 9
Bautista R. D., 1687
Bavestrello M. P., 1379
Beck C. M., 1477
Beckert W. F., 1325
Bellamy H. S., 53, 341
Beltrán J. L., 157
Bermejo E., 1649
Berthod A., 1367, 1489
Bhattacharjee S., 675
Bhongade S. L., 1525
Black T. M., 545
Blanco C., 1541
Blanco M., 261, 1671
Blanco P. T., 325, 333
Bobacka J., 1437
Bosch E., 1339
Bovara R., 425
Brauer R., 1325
Brindle I. D., 1147
Brunette J. P., 805
Buck R. P., 957
Budini R., 425
Burguera J. L., 1967
Burguera M., 1967
Busch K. W., 867
Busch M. A., 867

Cabalin L. M., 1741
Cabral J. P. S., 645
Cacho J., 1769
Calatayud J. M., 1067
Callahan D., 431
Cámara C., 1619
de la Campa M. R. F., 1759
Campos R. C., 1815
Capitán-Vallvey L. F., 1059, 1695
Carbonell V., 107, 1609
de Cardona C. S., 1361
Cardwell T. J., 765, 1981
Carneiro M. C., 1815
Carrea G., 425
Carrero P., 1967
Casay G. A., 935
Cassels B. K., 1379
del Castillo B., 1719
Castillo J. R., 1397
de Castro M. D. L., 21, 1587, 1595
Casu M., 1781
Casula R., 1781
Cattrall R. W., 765, 1981
Cela R., 1631
Cerda V., 1601
Cha C. S., 461
Chai Y.-Q., 1255
Chakraborti N., 1499
Chakrapani G., 541
Chalmers R. A., 121
Chamorro P. R., 1461
Chang C. D., 1367
Chang S. C., 461
Chang X., 527
Chattopadhyay P., 701
Chen A., 1085
Chen H., 1147
Chen S.-Y., 1139
Chen S.-Z., 1551
Cheng D. X., 1041
Chester T. L., 1951
Chiang D. W. L., 1193
Chiswell B., 533
Choi K.-K., 1005
Choquette S. J., 1899
Chow A., 1345
Christian G. D., 81, 119, 313, 1157
Chung H.-K., 981
de Cisneros J. L. H. H., 1725
Cladera A., 1601
Codony R., 157
Coello J., 261, 1671
Cofre P., 1273
Cohen O., 1937
Collins C. H., 1529
Compagnone, D., 1301
Compton B. J., 1943
Cooks R. G., 363, 1031, 1233
Cordero B. M., 1703
Cordero M. T. S., 691
Córdoba M. H., 1677
Cortéz J. A., 1677
Cosofret V. V., 957
Costa A. C. S., 1267
Cox J. A., 1911
Cremisini C., 1301
Crisponi G., 1781
Cristiani F., 1781
Cruywagen J. J., 1091
Cukrowska E., 205
Cukrowski I., 205
Cullen W. R., 185
Curtius A. J., 1815

Dalglish K., 299
Damodaran A. D., 771
Dams R., 975
Darbha L., 135
Dasgupta P. K., 53, 341, 831, 981, 1331
Dasgupta P., 675
De Robertis A., 609
De Stefano C., 629
Deady L. W., 765
Decnop-Weever L. G., 485
Dempsey H., 445
Deorkar N. V., 1535
Dezhi T., 1107
Díaz R. C., 1461
Ding X., 641
Dong Y., 1847
Dorkos M., 765
Dorsey J. G., 1951
Du H. S., 173
Dunphy D. R., 775
Duran-Meras I., 1657
Durand G., 1665
Dye S., 909
Džudović R. M., 649

East G., 1273
Efstathiou C. E., 1213
El-Adl S., 585
El-Bardicy M. G., 577
El-Maali N. A., 1833
El-Nahas M. S., 841
El-Sadek M., 585
El-Saharty Y. S., 577
El-Wakil A. M., 841
Ellison D. K., 491, 989
Eloranta J., 999
Elshani S., 173
Emara K. M., 1023
Ensafi A. A., 1375
Ephraim J. H., 521, 1425
Epstein M. S., 1477
Ertas F. N., 1481
Estela J. M., 1601
Estepa R. M. G., 1419
Esteve-Romero J. S., 1711

Falcón M., 17
Fan Z., 1557
Farag A. B., 841
Farah K. S., 879
Farias P. A. M., 1167
Feng S., 1041
Fernandez B. A., 1759
Ferreira S. L. C., 1167, 1267
Ferrer A., 1397
Ferrey M. L., 127
Ferri E., 425
Fife W. K., 363, 1233
Filha M. M. S., 1529
Flores J. R., 1391
Fo O. F., 737
Fogg A. G., 1481
Földeši V., 1189

Förster E., 855
Forsyth D. S., 299
Fu C., 641
Fu D., 409
de la Fuente C., 1637
Fukuda M., 75
Furton K. G., 1541
Furusawa M., 405, 657, 995, 1163
Fuxing P., 1107

Gad-Kariem E.-R. A., 811
Galceran M. T., 615
Gallignani M., 89, 1799
Gandhi M. N., 1535
Gao J., 195
Gao R.-M., 637
Gao Z., 399
Garcia-Alvarez-Coque M. C., 1711
García A., 1775
García A. C., 325, 333
García I. L., 1677
García M. G., 1775
García-Villanova R. J., 1419
Garrigues S., 89, 1799
Gelb R. I., 355
Genestar C., 1589
Georgijević J., 1295
Georgijević V., 1295
Ghandour M. A., 1833
Ghasemi J., 697
Ghini S., 425
Gianguzza A., 629
Girotti S., 425
Gold J. S., 1167
Gómez E., 1601
Gómez-Hens A., 225
Gomez M. J., 1657
Gonzalez A. G., 479
González I., 1775
Goossens J., 975
Gosser Jr. D., 1789
Goto E., 405
Granados M., 157
Grases F., 1589
Gründler P., 485
Gu C., 1147
Gu Z.-C., 1013
de la Guardia M., 89, 107, 1173, 1609, 1799
Guiteras J., 17
Guo T., 1927
Gupta J. G. S., 791
Gupta K. K., 507, 675
Gupta V. K., 781
Guzman M., 81, 1943

Halámek E., 287, 1189
Halvatzis S. A., 1213, 1245
Hämäläinen J. P., 1575
Hansen E. H., 119, 1891
Hao D., 409
Haque S., 1867
Harsh J. B., 147
Hart B. T., 1981
Hatton D., 307
Hauser P. C., 1193
Havenga W. J., 213
He H., 453
He Y., 1917
Hecht L., 545
Hendrix J. L., 1283
Hernández L., 1649
Herrador M. A., 479
Herrador-Mariscal J. M., 1059
Hewala I. I., 919
Heying M., 1107
Hill H. H. Jr, 147
Hitchman M. L., 1449
Hong G.-q., 1839
Hongbo C., 1445
Horak V., 1789
Horvath W. J., 1385
Houck A., 491
Hoyer B., 729
Hozumi M., 255
Hu G., 195
Hu N., 1183
Huang H., 891
Huerta A., 1649
Huie C. W., 1385
Hurtubise R. J., 901
Hwang H., 1077

Ilić Z., 1295
Imasaka T., 255
Ingle J. D. Jr, 167
Innis D. P., 1951
Ishibashi N., 255
Itabashi H., 75, 101
Iturriaga H., 261, 1671
Ivaschenko T. S., 1227
Ivaska A., 95, 399, 1437
Iyer C. S. P., 771
Izquierdo A., 17, 157

Jana N. R., 1519
Jeney J., 957
Jensen A., 1891
Jensen N., 729
Jha S. N., 675
Jiang Z.-L., 1823
Jie N., 1009
Jimenez A. I., 1687
Jimenez F., 1687
Jimenez-Prieto R., 1731
Jin W., 1221
Johnson D., 533
Jones D. R., 43

Kageyama S., 75
Kaila L., 999
Kamburova M., 707, 713, 719, 725
Kang J., 195
Kapoor J., 201
Kar S., 757
Kartikeyan S., 771
Karve M. A., 913
Kasture A. V., 1525
Kato C., 1049
Katsuta S., 231
Kauffmann J.-M., 1157
Kaveeshwar R., 781
Kawashima T., 75, 101, 599
Kazlauskiene L. G., 827
Khalaf K. D., 1173
Khashaba P. Y., 1289
Khattab N. A., 811
Khodari M., 1833
Khopkar S. M., 913, 1535
Kiba N., 405, 657, 995, 1163
Klein N., 1937
Knapp G., 9
Kobliha Z., 287, 1189
Koch K. R., 1975
Koebele A. R., 247
Kokubo Y., 237
Kolmer H., 9
Koshino Y., 799
Koshy V. J., 761
Kragten J., 485
Krishna D. M., 1873
Krishna R. R., 571
Krug F. J., 1529
Krupadanam G. L. D., 1357
Kubáň V., 831
Kubik T., 1465
Kulkarni P. G., 507
Kumar A., 1261
Kurihara M., 599
Kuroda R., 237
Kuselman I., 1, 749
Kusy R. P., 957

Laespada Mª E. F., 1703
Lai A., 1781
Lai E. P. C., 1097
Lajunen L. H. J., 661, 999
Lakhani S., 179
Lam C. K. Y., 867
Larrechi M. S., 1749
Laserna J. J., 1741
Lavagnini M. G., 1301
Le X.-C., 185
Lerch-Gurguta R., 1127
Lev O., 749
de Levie R., 1789
Lewenstam A., 1437
Lewinski K., 1911
Leyva J. A. M., 1725
Li H., 453
Li J., 409
Li P., 399
Li S., 1085
Li S., 1085
Liang W.-A., 925
Lima J. L. F. C., 1563
Lin S., 1077, 1183
Lin Y., 1325
Lindner E., 957
Lipowska M., 935
Liu C.-L., 1569
Liu D.-J., 381, 511
Liu H., 53, 341, 1331
Liu J., 969
Liu R.-M., 381, 511
Liu Y. M., 1759
Llerena M. J. V., 1391
Lobo I. P., 1267
Locascio-Brown L., 1899
Lopez J. L., 53
Loree E. L., 53
Lovrien R. E., 127
Lu J., 351
Lu L., 363, 1233
Luk S.-F., 1005
Luo X., 527

Ma D., 1847
Ma H., 969
Machado A. A. S. C., 1113
Mahfouz N. M. A., 1023
Majumdar T. K., 363, 1233
Malick R. E., 1951
Malik A. K., 201
Marchevsky E. J., 385
Marcos J., 391
Martin M. A., 1719
Martinez L. D., 385
Martinez M., 1339, 1769

Martinez-Avila R., 107
Martínez-Lozano C., 1361, 1625
Marx J. N., 981
Masi A. N., 931
Maspoch S., 261, 1671
Mathuthu A. S., 521
Matousek J. P., 1829
Mattos I. L., 1563
May P. M., 819
McKelvie I. D., 1981
Medina I., 1631
Mejuto M. C., 1631
Meloun M., 269, 279
Meng F., 1009
Merighi R., 425
Mesa J. A. G., 1595
Messaoudi A., 805
Mihajlović R. P., 649
Militký J., 269, 279
Milosavljević E. B., 1283
Ming R., 1107
Mir K. A., 53
Miralles N., 1339
Mohite B. S., 1511
Molina A. A., 1201
Molina-Diaz A., 1059
Molinero A. L., 1397
Montalvo S. I., 167
Montenegro M. C. B. S. M., 1563
Morales R., 1541
Morales-Rubio A., 1609
Moreira J. C., 1481
Moreno-Bondi M. C., 1619
Morra M. J., 37
Morris K., 53
Moscone D., 1301
Moyano E., 615
Muralidhar H. S., 1433
Murray K., 819
Murty D. S. R., 541

Nair M. K. T., 507
Nair M. S., 1411
Naixing W., 897
Nakano S., 75
Narukawa A., 799
Natarajan C., 1411
Navalón A., 1695
Ndou T. T., 557
Nelson J. H., 1283
Nerin C., 1769
Neto G. O., 1563
Neto J. A. G., 1563
Nevado J. J. B., 1391
Ni Z.-m., 1839
Nikolić S. D., 1283
Nirdosh I., 179
Nordén M., 1425
Nuñez-Vergara L. J., 1379
Nurchi V., 1781
Nyasulu F. W. M., 1449
Nyman J., 95

O'Connell G. R., 765
Oguchi M., 1163
Oguma K., 237
Ohara A. K., 1167
Ojeda C. B., 1643, 1861
Olin Å., 669
Olsina R. A., 385, 931
Otruba V., 221
Otto M., 855
Oyama Y., 657
Ozutsumi K., 599

Pacey G. E., 1961
Padarauskas A. V., 827
Pal T., 1519
Palleschi G., 1301
Panadero S., 225
Pandey L. P., 675
Pandurangi R. S., 687
Panholzer F., 9
Parham H., 1353
Pascual-Reguera M. I., 1059
Patil J. M., 1511
Patonay G., 935
Patriarche G. J., 313, 1157
Pau C.-P., 557
Pavón J. L. P., 1703
Pavon J. M. C., 691, 1643, 1861
Pedrazzi E. M., 551
de la Pena A. M., 1657
Pérez J. A., 1649
Pérez-Bendito D., 225, 855, 1505, 1731
Pérez-Conde M. C., 1619
Pérez-Ruíz T., 1361, 1625
Perino E., 385
Petersen K., 53
de la Pezuela C., 1671
Phillips D., 909
Piazzi S., 425
Pickard S. T., 545, 687
Pickering W. F., 307
Pillai M. S., 1411
Ping Q., 897
Pinto C. G., 1703
Polavarapu P. L., 545, 687
Pollema C., 81
Pons B., 1769
Posch S., 9
Powell H. K. J., 1829
Prabhu S. V., 989
Prados P., 1719
Prasad K. M. M. K., 1809
Prat M. D., 17, 157
Pulgarín J. A. M., 1201
Pungor E., 957

Qingxiong L., 1557
Quarin G., 313
Qureshi S. Z., 1867

Raheem S., 1809
Rajan S. C. S., 653
Ramachandran K. N., 781
Ramis-Ramos G., 1711
Ranasinghe A., 363, 1233
Rangaswamy R., 541
Rao A. L. J., 201
Rao A. S., 675
Rao C. R. M., 1433
Rao J. V., 571
Rao N. V., 653
Rao P. V. C., 761
Rao R. S., 1873
Rao T. H., 565
Rao T. P., 771
Rao V. S. S., 653
Reamer R. A., 989
Reddi G. S., 1433
Reddy B. P., 1357
Reddy M. S., 1357
Regenstein W., 1019
Reimer K. J., 185
Reis B. F., 1529
Remolà J. A., 1749
Ren J., 851
Riba J., 261
Richter P., 1405
Ríos A., 391
Rius F. X., 1749
Rivas C., 1967
Rizkalla E. N., 999
Rochette E. A., 147
Roda A., 425
Rodriguez A. M. G., 1861
Rohand J., 1695
Rokkjær I., 729
Rong Y., 1883
Rosatzin T., 957
Rovira E., 261
Roy S. K., 1499
Rubí E., 1631
Rubinsztajn S., 1233
Rui X., 1505
Ruperez A., 1741
Rusdiarso B., 805
Rusling J. F., 741
Růžička J., 81

Saeed A., 1867
Sahoo B. N., 701
Sakr S. M., 585
Salinas F., 1657
Salvador A., 107, 1609
Samimifar M., 1375
Sammartano S., 609, 629
Sancenon J., 1173
Sánchez-Batanero P., 1637
Sanchez-Pena M., 1657
Santana-Rios G., 845
Santelli R. E., 551
dos Santos A. J. M. G., 737
Sanz-Medel A., 1759
Saraswati R., 565, 1477
Sastre A., 1339
Sastry B. S., 571
Sastry C. S. P., 571, 1357
Schaller U., 957
Schmitt N., 1489
Sentürk Z., 313
Sernaglia R. L., 515
Setiadji R., 351, 845
Shamsipur M., 503, 697, 1353
Sharghi H., 697
Sharma R. L., 415
Shen G.-L., 1255
Shukla J. P., 1261
Silva L., 1405
Silva M., 855, 1505, 1731
Simo-Alfonso E. F., 1711
Simon W., 957
Singh H. B., 415, 1851
Singh R. K., 507, 1261
Singh V. K., 415, 1851
Skalníková B., 221
Smith H. E., 545, 687
Smith K. J., 1961
Smith-Palmer T., 1139
Smyth M. R., 445, 1131
Sneddon J., 879
Souček J., 287
Sperling M., 1917
Squella J. A., 1379
Stetter J. R., 461
Stewart I. I., 1345
Strekowski L., 935

Strizhak P. E., 1227
Strnadová M., 221
Su X., 347
Su Z., 527
Suliman F. E. O., 623
Sultan S. M., 593, 623, 681
Sun A. L., 381, 511
Sun B., 891
Suryanarayana M. V., 1357
Suzuki H., 405, 995
Suzuki N., 231
Synovec R. E., 495, 775

Takase I., 1167
Tamaddon F., 697
Tang F., 1147
Tascón M. L., 1637
Tawakkol M. S., 577
Taylor D. B., 495
Tena M. T., 21
Teshima N., 101
Thomas G., 507
Thomas S., 491
Tilotta D. C., 247
Timotheou-Potamia M. M., 1213, 1245
Toma H. E., 515
Tomás V., 1361, 1625
Toral M. I., 1405
de Torres A. G., 691, 1643, 1861
Tóth K., 957
Tsukube H., 1313
Tummavuori J. L., 1575

Underhill D. W., 139, 143, 785
Uray G., 453

Vajgand V. J., 649
Val O., 1625
Valcárcel M., 391, 1587, 1595
Valdez-Hevia y Temprano M. C., 1759
del Valle M., 1113
Van Der Meer B. W., 1139
Vandecasteele C., 975
VanderNoot V. A., 1097
Vanhaecke F., 975
Varadarajan N., 507
Vãzquez M. D., 1637
Velasco A., 1505, 1731
Venkataraman S., 1357
Vilchez J. L., 1695
Villar J. C. C., 325, 333
Viré J.-C., 313
Virtanen V., 661
Vladescu L., 1127

Wada T., 237
Wai C. M., 173, 1325
Wandlowski Th., 1789
von Wandruszka R., 37
Wang E., 943
Wang G., 399
Wang H., 851
Wang J., 351, 445, 557, 845, 1905
Wang K.-M., 1569
Wang S., 1325
Wang X.-de, 1013
Wang Y., 1847
Wang Z., 1073
Ward P., 1131
Warner I. M., 557
van de Water R. F., 1091
Weber D., 299
Wegscheider W., 9
Weian L., 897
Welz B., 1917
Wenzhao S., 1883
Whitaker M. J., 113
Wolfbeis O. S., 453
Wong B., 1097
Wood D. J., 173
Woodford D., 909
Wu D., 901
Wynn D. A., 1207

Xiang P., 409
Xiao L., 1221
Xiaohua L., 1883
Xingguo C., 883
Xu F., 1551

Yamada H., 1049
Yan X.-p., 1839
Yang J., 1009
Yang X.-t., 1839
Yanjun X., 883
Yarnitzky C. N., 1937
Yatsimirskii K. B., 1227
Ye Y., 891
Yu R.-Q., 1255, 1569
Yuan D-X., 637
Yuan R., 1255
Yuan X., 37
Yunus M. Z. M., 179

Zagatto E. A. G., 1563
Zambare D. N., 1511
Zamora L. L., 1067
Zapardiel A., 1649
Zeldin M., 363, 1233
Zeng H.-H., 1569
Zeng X., 1183
Zha T., 399
Zhan G., 527
Zhang G., 409, 1041
Zhang H., 313, 741, 1551
Zhang Y., 851, 867
Zhang Z.-Q., 1551
Zhao Z., 399
Zhao Z.-Q., 637
Zheng H. J., 1331
Zheng Y., 347
Zhide H., 883
Zhou H., 1073
Zhou J., 925, 943
Zhou Q.-Z., 637
Zhou S., 1073
Zhu Z.-L., 1013
Zou S-F., 925

Typeset in Great Britain by BPCC Techset Ltd, Exeter. Printed in Great Britain by BPCC Wheatons Ltd, Exeter.

Receive Regular News of Pergamon's Publications

Pergamon mails information on new and existing publications regularly.
If you would like to be added to the mailing list please send us your name and full mailing address, indicating your fields of interest:

ENGINEERING
Energy Sources & Technology, Civil & Structural Engineering,
Mechanical Engineering, Electrical & Electronic Engineering,
Systems & Control Engineering, Aeronautical & Aerospace Technology,
Materials Technology, Chemical Engineering

LIFE SCIENCES & MEDICINE
Biological Sciences (including biochemistry & molecular biology), Agriculture,
Veterinary Medicine, Immunology, Cancer Research, Pharmacology,
Neuroscience, Vision Science, Clinical Medicine

PHYSICAL SCIENCES
Computer Science, Physics, Chemistry, Mathematics, Earth Science,
Environmental Science, Materials Science, Space & Planetary Sciences

SOCIAL SCIENCE & HUMANITIES
Sociology, Women's Studies, Psychology, Education,
Political Science, Geography, Economics, Management & Business, Linguistics,
Information Science, Librarianship

PERGAMON

An imprint of Elsevier Science

Elsevier Science Ltd
The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, UK

Elsevier Science Inc.
660 White Plains Road, Tarrytown, NY 10591-5153, USA

COR017/P4

Announcing New and Newly Acquired Journals

Engineering

Control Engineering Practice
1994: Volume 2 (6 issues)
Publishes papers which illustrate the direct application of control theory and its supporting tools in all possible areas of automation. The journal is centred in engineering - especially mechanical, electrical and electronic, aerospace and chemical engineering, but also includes social effects, cultural aspects, project planning and system design and economic and management decisions.

Engineering Failure Analysis
1994: Volume 1 (4 issues)
Publishes original, high quality research papers, communications, and occasional review articles describing the analysis of engineering failures and related studies.
It provides essential reference material and critical feedback into design process thereby contributing to the prevention of engineering failures in the future.

Chemistry

Bioorganic & Medicinal Chemistry
A Tetrahedron Publication
1994: Volume 2 (12 issues)
Provides an international forum for the publication of full original research papers and critical reviews on molecular interactions in key biological targets such as receptors, channels, enzymes, nucleotides, lipids and saccharides. The aim of the journal is to promote a better understanding at the molecular level of life processes, and living organisms, as well as the interaction of chemical agents with these.

Molecular Biology

Cytokine Reviews and Communications
1994: Volume 1 (4 issues)
This new international journal will publish both authoritative reviews and short preliminary communications in the growing field of cytokine research. Articles will focus on all aspects of cytokine research, including cytokine discovery, functional studies, and genetic and molecular experimentation.

Free sample copies of these journals are/or will be available on publication, from your nearest Elsevier Science office

PERGAMON
An imprint of Elsevier Science

Elsevier Science Ltd, The Boulevard, Langford Lane, Kidlington, Oxford, OX5 1GB, UK
Elsevier Science Inc., 660 White Plains Road, Tarrytown, NY 10591-5153, USA

Social & Behavioural Sciences

European Management Journal
1994: Volume 12 (4 issues)
Publishes leading-edge research from academics and senior industrialists throughout Europe and the United States enabling practitioners and management trainers to broaden their knowledge of the new operational environment.

International Business Review
1994: Volume 3 (4 issues)
This journal provides a forum for academics and professionals to share the latest developments and advances in knowledge and practice of international business. It aims to foster the exchange of ideas on a range of important international subjects and provide stimulus for research and the further development of international perspectives.

International Transactions in Operational Research
1994: Volume 1 (4 issues)
The primary purpose of this journal is to advance the understanding and practice of operational research on an international basis. The scope of the journal will include problems of an international nature (eg. fisheries management, environmental, global competitiveness).

Location Science
1994: Volume 2 (4 issues)
The primary focus of this journal is on research directed to extending and applying the theory and modeling of location decisions. The journal will also publish papers which address the underlying processes related to locational decisions, the determination of parameters associated with location problems, and issues of implementation.

Transportation Research Part C: Emerging Technologies
1994: Volume 2 (4 issues)
This journal is concerned with the impacts of new technology (including IVHS) on transportation system performance characteristics.

Environmental Science & Technology

Spill Science and Technology Bulletin
Sister Journal of *Marine Pollution Bulletin*
1994: Volume 1 (2 issues)
A new international, peer-reviewed journal on oil and chemical spill science and technology, focussing on the effects and control of discharges of oil, oil products and other hazardous substances. Both land and water spill issues will be addressed, and papers linking science and technology with policy and management matters will also be considered appropriate.